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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/689,851

10/22/2003

Risto Mononen

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EXAMINER

TRUONG, THANHNGA B

ART UNIT

PAPER NUMBER

2135

MAIL DATE

DELIVERY MODE

01/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/689,851

Applicant(s)

MONONEN ET AL.

Examiner

Thanhnga B. Truong

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/19/07 (RCE).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22/10/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 19, 2007 has been entered. Claims 1-31 are pending. At this time, claims 1-31 are still rejected.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-12, 17-18, and 21-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leung (US 6,760,444 B1), and further in view of Yegin et al (US 7,286,671 B2).

a. Referring to claim 1:

i. Leung teaches a method for performing an address update in a communication system, the method comprising:

(1) indicating that a correspondent registration process needs to be performed, wherein the correspondent registration process includes transmitting a binding update to a correspondent node of a mobile node (**column 2, lines 21-30 of Leung**), wherein the binding update includes location-related information about the mobile node and wherein the location-related information enables one of the correspondent node, or a third party to determine a geographic location of the mobile node within a certain accuracy (**column 2, lines 10-30 of Leung**);

(2) authenticating the correspondent node in response to the indicating, the authenticating yielding identity information about the correspondent node **(column 2, lines 47-57 of Leung)**;

(3) determining whether the correspondent registration process is to be carried out, based on the identity information; and performing the correspondent registration process when the determining indicates that the correspondent registration process is to be carried out and omitting the correspondent registration process when the determining indicates that the correspondent registration process is not to be carried out **(column 2, lines 10-30 of Leung. Furthermore, if the negotiation is not successfully completed, the update will not take place)**.

ii. Although Leung teaches the claimed subject matter, Leung does not clearly address the message being sent to correspondent node including the binding update. On the other hand, Yegin teaches this limitation in column 2, lines 11-13 of Yegin.

iii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) have modified the invention of Leung with the teaching of Yegin to update packet routing information on a roaming client through a registration process **(column 1, lines 65-66 of Yegin)**.

iv. The ordinary skilled person would have been motivated to:

(1) have modified the invention of Leung with the teaching of Gehrmann to secure and protect the mobile IP network technology **(column 1, lines 7-8 of Leung)**.

b. Referring to claim 2:

i. Leung further teaches:

(1) wherein the performing performs the correspondent registration process for optimizing routing between the mobile node and the correspondent node (**column 2, lines 10-30 of Leung**).

c. Referring to claim 3:

i. Leung further teaches:

(1) further comprising storing security policy data in the mobile node, the security policy data indicating a set of trusted parties (**column 2, line 64 through column 3, line 16; column 4, lines 28-31 of Leung**).

d. Referring to claim 4:

i. Leung further teaches:

(1) wherein the determining comprises comparing the identity information with the security policy data stored in the mobile node (**column 3, lines 33-44 of Leung**).

e. Referring to claim 5:

i. Leung further teaches:

(1) wherein the performing is carried out in response to the comparing when the comparing indicates that the correspondent node belongs to the set of trusted parties (**column 3, lines 33-44 of Leung**).

f. Referring to claim 6:

i. Leung further teaches:

(1) wherein the determining comprises prompting a user of the mobile node to make a decision when the comparing indicates that the correspondent node fails to belong to the set of trusted parties, wherein the prompting comprises informing the user about the identity information (**column 4, lines 32-56 of Leung**).

g. Referring to claim 7:

i. Leung further teaches:

(1) wherein the indicating comprises indicating that the correspondent registration process comprises a binding update process according to a Mobile IP protocol **(column 1, line 50 through column 2, line 20 of Leung)**.

h. Referring to claim 8:

i. Leung further teaches:

(1) wherein the indicating is performed in response to a predetermined event **(column 1, line 50 through column 2, line 20 of Leung)**.

i. Referring to claim 9:

i. Leung further teaches:

(1) wherein the indicating comprises responding to the predetermined event comprising reception of a packet routed via a home agent of the mobile node **(column 2, lines 21-46; column 5, lines 6-13 of Leung)**.

j. Referring to claim 10:

i. Leung further teaches:

(1) wherein the indicating comprises responding to the predetermined event comprising reception of a new address for the mobile node **(column 2, lines 21-46 of Leung)**.

k. Referring to claim 11:

i. Leung further teaches:

(1) wherein the storing comprises storing the security policy data comprising high-level identifiers of trusted correspondent nodes **(column 2, line 64 through column 3, line 16; column 4, lines 28-31 of Leung)**.

l. Referring to claim 12:

i. Leung further teaches:

(1) wherein the storing comprises storing the security policy data comprising rules for deciding whether the identity information represents a trusted correspondent node **(column 3, lines 45-65 of Leung)**.

m. Referring to claim 17:

i. This claim consist a mobile node for a communication system to implement a method of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

n. Referring to claim 18:

i. This claim has limitations that is similar to those of claim 7, thus it is rejected with the same rationale applied against claim 7 above.

o. Referring to claim 21:

i. Leung further teaches:

(1) wherein the location privacy decision unit comprises a security policy database, the location privacy decision unit being configured to determine, by means of the security policy database, whether the correspondent registration unit can be activated without consulting a user of the mobile node (**column 4, line 65 through column 5, line 4 of Leung**).

p. Referring to claim 22:

i. This claim has limitations that is similar to those of claim 6, thus it is rejected with the same rationale applied against claim 6 above.

q. Referring to claim 23:

i. This claim has limitations that is similar to those of claim 11, thus it is rejected with the same rationale applied against claim 11 above.

r. Referring to claim 24:

i. This claim has limitations that is similar to those of claim 5, thus it is rejected with the same rationale applied against claim 5 above.

s. Referring to claim 25:

i. This claim has limitations that is similar to those of claim 12, thus it is rejected with the same rationale applied against claim 12 above.

t. Referring to claims 26 and 31:

i. These claims consist a system and an apparatus for performing an address update in a communication system to implement a method of claim 1, thus they are rejected with the same rationale applied against claim 1 above.

u. Referring to claims 27 and 28:

i. Leung further teaches:

(1) wherein the authentication means are located in the mobile node or in a home agent of the mobile node (**column 5, lines 15-21 of Leung**).

v. Referring to claim 29:

i. Leung further teaches:

(1) wherein the correspondent registration means are located in a home agent of the mobile node (**column 2, lines 10-20 of Leung**).

w. Referring to claim 30:

i. Leung further teaches:

(1) wherein the location privacy decision means are located in the home agent of the mobile node (**column 2, lines 10-20 of Leung**).

4. Claims 13-16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leung (US 6,760,444 B1), in view of Yegin et al (US 7,286,671 B2), and further in view of Gehrman (US 6,912,657 B2).

a. Referring to claim 13:

i. Although the combination of teaching between Leung and Yegin teaches the authentication the correspondent node as shown in Figure 1 and column 5, lines 15-30, they are silent on the capability of using the certificate-based authentication protocol. On the other hand, Gehrman teaches:

(1) wherein the authenticating comprises authenticating the correspondent node by means of a certificate-based authentication protocol (**column 2, lines 19-23 of Gehrman**).

ii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) have modified the modified-invention of Leung with the teaching of Gehrman for establishing a security association in an ad hoc network **(column 1, lines 9-10 of Gehrman)**.

iii. The ordinary skilled person would have been motivated to:

(1) have modified the modified-invention of Leung with the teaching of Gehrman to secure and protect the mobile IP network technology **(column 1, lines 7-8 of Leung)**.

b. Referring to claim 14:

i. The combination of teaching between Leung, Yegin, and Gehrman teaches a method for performing an address update in a communication system. Gehrman further teaches:

(1) wherein the authenticating comprises authenticating by means of the certificate-based authentication protocol comprising an internet key exchange protocol **(column 1, line 36; column 7, line 3 of Gehrman)**.

c. Referring to claim 15:

i. The combination of teaching between Leung, Yegin, and Gehrman teaches a method for performing an address update in a communication system. Gehrman further teaches:

(1) wherein the authenticating comprises authenticating by means of the certificate-based authentication protocol comprising a transport layer security protocol **(column 7, line 2 of Gehrman)**.

d. Referring to claim 16:

i. The combination of teaching between Leung, Yegin, and Gehrman teaches a method for performing an address update in a communication system. Gehrman further teaches:

(1) wherein the authenticating comprises authenticating by means of the authenticating step comprising certifying the identity information cryptographically **(column 6, lines 30-45 of Gehrman)**.

e. Referring to claim 19:

i. This claim has limitations that is similar to those of claim 13, thus it is rejected with the same rationale applied against claim 13 above.

5. Claim 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leung (US 6,760,444 B1), in view of Yegin et al (US 7,286,671 B2), and further in view of Forslow (US 6,954,790 B2).

a. Referring to claim 20:

i. Although the combination of teaching between Leung and Yegin teaches the authentication the correspondent node as shown in Figure 1 and column 5, lines 15-30, they are silent on the capability of using the Domain Name System-based protocol. On the other hand, Forslow teaches:

(1) wherein the authentication unit comprises a domain name system-based protocol for obtaining the identity information (**column 1, lines 66-67 of Forslow**).

ii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) have modified the modified-invention of Leung with the teaching of Forslow for establishing a security association.

iii. The ordinary skilled person would have been motivated to:

(1) have modified the modified-invention of Leung with the teaching of Forslow to secure and protect the mobile IP network technology (**column 1, lines 7-8 of Leung**).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Lee et al (US 6,915,325 B1) discloses location update messages for a mobile node can be made interceptible by routers which form tunnels for communication with the mobile node. A correspondent agent intercepts a Binding Update with a Router Alert and binds the address of the mobile node with a care of address for the mobile node provided in the Binding Update. The correspondent agent

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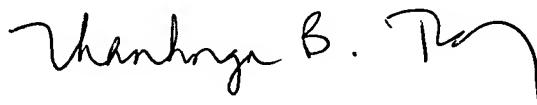
Page 10

will thereafter intercept messages from its correspondent host destined for the mobile node and redirect them to the care of address thereby bypassing the home agent of the mobile node. A border router intercepts a Registration Request with Router Alert and binds the address of the mobile node with a care of address for the mobile node. (see abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhnga (Tanya) Truong whose telephone number is 571-272-3858.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.



TBT

January 20, 2008

**THANHNGA TRUONG
PRIMARY EXAMINER**